UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/642,492	08/18/2000	Gary Van Nest	377882000800	7136

25226 7590 11/21/2002

MORRISON & FOERSTER LLP
755 PAGE MILL RD
PALO ALTO, CA 94304-1018

EXAMINER	
FOLEY, SHANON A	

ART UNIT	PAPER NUMBER
1648	18

DATE MAILED: 11/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/642,492	VAN NEST ET AL.	
	Examiner	Art Unit	
	Shanon Foley	1648	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 23 October 2002 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 6 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1.☒ A Notice of Appeal was filed on 23 October 2002. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2.☐ The proposed amendment(s) will not be entered because:

(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

(b) ☐ they raise the issue of new matter (see Note below);

(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3.☐ Applicant's reply has overcome the following rejection(s): _____.

4.☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5.☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See the attached correspondence.

6.☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7.☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.

Claim(s) objected to: none.

Claim(s) rejected: 1,4-6,11-23,25-33 and 37-42.

Claim(s) withdrawn from consideration: 43-52.

8.☐ The proposed drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9.☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10.☒ Other: Office correspondence

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4, 6, 11-13, 14, 17, 20-23, 25-33 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. (WO 98/55495, "Schwartz") for reasons of record.

Applicant argues that the Schwartz does not teach or suggest the instant invention, drawn to a method of modulating an immune response to a second antigen by administering (i) an immunostimulatory molecule proximately associated with a first antigen with (ii) a second antigen, wherein the immune response to (i) is sufficient to modulate an immune response to the second antigen. Applicant points to page 8, lines 12-15, experiments 3 and 4, and figures 9 and 12 of the reference. Applicant argues that the experimental data provided in the reference teaches that the ISS molecule must be proximately associated as apposed to being freely associated in the same solution. Applicant has also provided a declaration, which provides immune response data when an antigen (β-gal) is administered lone or mixed with different amounts of ISS-Amb a 1-conjugated molecules.

Applicant's arguments, as well as a careful review of the declaration have been considered, but are found unpersuasive. It appears from the arguments presented that applicant intends for the claims to specify that the second antigen is in a mixture and is not proximately associated with the ISS-first antigen conjugate. This limitation is not clearly recited in the

claims, if this is what applicant intends. The claims require the following ingredients to practice the method: 1) an ISS proximately associated with a first antigen and 2) a second antigen. The claims do not specify that the second antigen is freely soluble in a mixture with 1). Therefore, the second antigen may be conjugated to an ISS molecule or freely associated in the mixture.

Schwartz teaches that ISS is administered in conjunction with one or more antigens, see page 12, lines 9-29. In lines 29-38 of the same page, Schwarz teaches that the ISS and antigen and/or immunomodulatory facilitator (emphasis added) are administered in the form of a conjugate or co-administered in an admixture. Therefore, the reference teaches multiple ISS-antigen conjugated molecules that comprise different antigens and also administration of an antigen mixture. Example 3 of the Schwartz, pointed to by applicant, is drawn to co-administration of an antigen-ISS conjugate and freely associated adjuvant MF59. Applicant's conclusion that the reference does not teach potentiation of MF59 is inconclusive because the reference does not provide data when MF59 is administered alone. Therefore, it is maintained that the reference teaches and suggests administration of multiple antigens and immunomodulatory facilitators. Also, there motivation for one ordinary skill to administer multiple antigens to elicit an immune response to multiple regions of the same pathogen and a more than reasonable expectation for producing the claimed invention because Schwartz teaches that antigens administered with an ISS conjugate elicit a Th1 response.

Claims 1, 4, 6, 11-13, 14, 17, 20-23, 25-33 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carson et al. (WO 98/16247, "Carson")

Applicant argues that Carson also does not teach the claimed invention. Applicant points to working examples I and III of the reference and concludes that Carson does not teach the

instant invention because Carson teaches that when the ISS and antigen are in admixture and are not linked, there is no potentiation of an immune response. Applicant also submits that the reference does not provide a reasonable expectation of augmenting an immune response to a second, antigen with an ISS-antigen conjugate. Applicant also points to the data provided in the declaration.

Applicant's arguments, a review of the declaration, and a thorough review of the reference are unpersuasive. It is agreed that the reference teaches that when an unconjugated ISS and a freely associated antigen are coadministered, a potentiation of an immune response is not observed. However, upon close inspection of figure 1, which depicts data generated from example 1, it is evident that an immuno-potentiation of an antigen occurs when it is conjugated with an ISS molecule. Carson teaches methods of modulating an immune response with more than one antigen, see for example page 17, lines 5-10, page 19, lines 1-7, and claims 27 and 54. As discussed above, the claims are not limited to un-conjugated second antigens. Therefore, it is maintained that while the reference does not explicitly teach administering a second antigen, the reference suggests doing so without unexpected results for reasons of record.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. or Carson et al. as applied to claims 1-4, 6-8, 13, 14, 17, 20-36 above, and further in view of Rose (J. Ther. Biol. 1998; 195: 111-128) for reasons of record.

Claim 15 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. or Carson et al. and Rose as applied to claims 1-8, 13, 14, 17, 20-36 above, and further in view of Lee et al. (Ann Med. 1998; 30: 460-468) for reasons of record.

Claims 16 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. or Carson et al., and Rose, as applied to claims 1-8, 13, 14, 17, 20-36 above, and further in view of Durali et al. (J of Virol. 1998; 72(5): 3547-3553) for reasons of record.

Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. or Carson et al., Rose, Lee et al., and Durali et al. as applied to claims 1-8, 13-17, 20-36 above, and further in view of Anderson (US Patent 4,673,574) for reasons of record.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schwartz et al. or Carson et al., Rose, Lee et al., Durali et al., and Anderson as applied to claims 1-8 and 13-36 above for reasons of record.

Applicant argues that since the primary references of Schwartz and Carson do not teach or suggest the instant claims drawn to an immunomodulatory polynucleotide proximately associated with a first antigen with a second antigen to modulate an immune response to the second antigen, and the secondary references do not remedy the primary references, a prima facie obvious case has not been established.

Applicant's arguments have been considered, but are found unpersuasive because while the primary references, Schwartz or Carson, do not explicitly teach administering a second antigen in the method or composition, the references suggest doing so. Further, both references teach that the oligonucleotide immunomodulatory sequences (ISS) induce a Th1 response specific to an antigen administered with the ISS. Therefore, administering a second antigen with the conjugate comprising a first antigen and an ISS would be an obvious variation to the teachings of Schwartz or Carson.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shanon Foley whose telephone number is (703) 308-3983. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Housel can be reached on (703) 308-4027. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-4242 for regular communications and (703) 308-4426 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.

Shanon Foley
November 7, 2002

JAMES HOUSEL 11/18/02
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600